

## **IN THE CLAIMS**

1. (Previously Presented) A reactor suitable for the catalytic conversion of a feed mixture which is capable of explosion or ignition comprising: a feed supply chamber, an effluent discharge chamber, a catalyst bed having an upstream surface and a downstream surface which is in fluid communication with the effluent discharge chamber, and means for covering part of the upstream surface that partly confine the feed supply chamber comprising a rotatable disc having an axis of rotation parallel to and excentric with respect to the central longitudinal axis of the catalyst bed, which disc has a radius which is larger than the sum of the radius of the catalyst bed and the distance between the longitudinal axis of the catalyst bed and the axis of rotation of the discs, and which disc has at least one opening excentric to the axis of rotation, wherein the feed supply chamber has, during normal operation, no zones where the fluid flow is stagnant.

2. (Previously Presented) The reactor of claim 1, wherein the uncovered area of the upstream surface can be varied between a maximum and a minimum value, wherein the ratio between the maximum and the minimum value is at least 5.

3. (Previously Presented) The reactor of claim 1, wherein the feed supply chamber is equipped with means for swirling the feed mixture.

4. – 10. Cancelled.

11. (Previously Presented) The reactor of claim 1, wherein the distance between the center of the opening and the rotation axis of the disc is equal to the distance between the longitudinal axis of the catalyst bed and the rotation axis of the disc.

12. Cancelled.

13. Cancelled.

14. Cancelled.